

SYSTEM AND METHOD FOR SYSTOLIC ARRAY SORTING OF INFORMATION SEGMENTS

ABSTRACT OF THE INVENTION

5 A system and method have been provided for sorting
information segments in a packet/cell earliest deadline first queue circuit.
The invention permits information segments to be inserted at a rate that
is twice as fast as the maximum extraction rate. Pairs of permanent and
temporary registers are organized into a hierarchical sequence of stages.
10 Generally, information segments with lower field ranks move systolically
through the stages to temporary registers in higher sequence stages.
Information segments with higher field ranks move systolically through
the stages to permanent registers lower in the sequence of stages. The
invention permits the highest rank information segments to be sorted and
15 extracted with great efficiency.